

Remarks

Applicant held a telephone interview with the Examiner on Jan. 07, 2009 in order to detail the patentable limitations of the invention.

Telephone Interview Summary

Date : 2009-01-07
Participants : Alex Nicolaescu, agent of record and USPTO Examiner **Karikari Kwasi**
Subject : Discussed invention, particularly claim 1

The interview was used in order to discuss the outstanding claims rejections under : 35 U.S.C. §103 (a). Claims 1, 3-8, 10-14 stand rejected under section 103(a) of 35 U.S.C. for being allegedly rendered obvious by Chowdhury (US 200400106393A1) in view of Hsu (US20040008632).

The Undersigned first presented the claim 1 to the Examiner. Claim 1 is directed to a method for setting up a prepaid quota for a prepaid subscriber in a Packet Data Access Node (PDAN), the method starting with receiving a registration request from a Mobile Node (MN) and responsive thereto, communicating with an Accounting Prepaid Server (HAAA/PPS), and obtaining an indication that the MN is allowed prepaid service over at least one auxiliary service instances associated with a service option. Thereafter, a primary service instance for the MN is established. Responsive to the indication, the PDAN requests from the HAAA/PPS a prepaid quota relative to the at least one auxiliary service instance, receives the prepaid quota, and pre-installs that quota for the auxiliary service instance.

Applicant submitted during the interview that it is clear that the claimed invention deals with prepaid quotas for auxiliary service instances associated with given service options [Emphasis added].

Applicant also explained to the Examiner what prepaid service is and how a prepaid quota is used in the network.

While prepaid quota assignment for an *entire* packet data session between a terminal and a PDSN was known in the prior art, as both acknowledged by the Applicant in the Background section of the patent application and confirmed by the teachings of Chowdhury, the prior art clearly stops short of suggesting prepaid quota assignment for auxiliary service instances [Emphasis added], as claimed.

For a better understanding of the concept of service instances associated with particular service options, the attention of the Examiner was drawn during the interview to the explanation given in par. [0009] and [0010] of the application, which describe what an auxiliary service instance is: service options in

CDMA2000 networks allow for e.g. voice communications with header-removed (service option SO60) or header-compressed (service option SO61) IP/UDP/RTP packets between the base station and the MN. Furthermore, “service options are typically designed for the transport of voice application data between the MN and a correspondent node on the IP network, and they each require the use of an associated packet data service instance (also called auxiliary connection) connected to the same PDSN. These service instances dedicated to the support of specific service options (e.g. live video teleconference) are called auxiliary service instances and are established between the MN and the serving PDSN on top of the main service instance for a PPP connection. Typically, depending upon the application, a PPP connection can support up to one main service instance and 6 auxiliary service instances.”

Applicant further submitted that, as it can be seen, an auxiliary service instance is not the same as an overall packet data session. It is rather a particular possible component of the overall packet data session established and associated with given type of traffic.

Referring back to the prior art, the Undersigned discussed Chowdhury. This reference teaches how a prepaid volume quota for the overall prepaid packet data session is computed using a RADIUS accountant request messages, and the dual use of such a volume quota with a prepaid volume threshold. Nowhere in Chowdhury is there any mention of an auxiliary service instance. Chowdhury stops short of mentioning any division of the overall packet data session established between the PDSN and the mobile node into a main service instance and auxiliary service instances, as the Applicant claims. Consequently, nowhere in Chowdhury can there be found a mention of a prepaid quota that would apply to a given auxiliary service instance only.

To this effect, it was pointed out that the statements of the outstanding Office action, page 3, in relations to steps b. and c. are inaccurate: while it is true that Chowdhury teaches a prepaid quota for the requested overall packet data session, Chowdhury stops short of describing any auxiliary service instance. Thus, Chowdhury fails to teach or suggest the prepaid quota for the auxiliary service instance [Emphasis Added] as claimed. Chowdhury also fails to teach or suggest the indication that the MN is allowed service over the specific auxiliary instance [Emphasis Added] as claimed. Rather, Chowdhury only provides a generic indication from the AAA to the PDSN if the terminal is allowed prepaid service at all over the overall packet data session, without specifics regarding auxiliary service instances and associated particular quotas.

Hsu is the second reference cited in the outstanding Office action. During the interview, the Undersigned submitted that Hsu also stops short of teaching or suggesting prepaid quota allocation for auxiliary service instances, and thus, for the same reasons as indicated above cannot be said to teach or suggest

the present invention. While Hsu mentions service options, Hsu's teaching is limited to Quality of Service (QoS) management using various service options. In particular, in Hsu, a service option is associated to a particular QoS. However, Hsu stops short of dealing with prepaid service, and fails to address prepaid quota for given service options.

The Undersigned also pointed out during the telephone interview that the combination of Chowdhury and Hsu would still stop short of teaching the invention of claim 1. For example, Chowdhury teaches prepaid quota for an overall session, and Hsu teaches service instances associations with a QoS. Therefore, such a combination would still lack the teaching or suggestion that a prepaid quota is assigned to a subset of the overall connection, i.e. to a service instance associated to a service option. Moreover, the combination of prior art will still fail to teach or suggest that an auxiliary service instance prepaid quota is set in the PDAN as a result of an indication received from the HAAA/PPS to the effect that not only prepaid service is allowed for a user, but such service is allowed over multiple service instances and for given service options. Because the combination of Chowdhury and Hsu still fails to teach or suggest the limitations of claim 1 related to the particular manner of installing the prepaid quota for a given service instance.

As a consequence, the Undersigned submitted during the interview that claim 1 is patentable.

The Examiner and the Undersigned also explored the possibility to include additional limitations into claim 1, which possibility the Undersigned committed to explore.

Claim Amendments

The Applicant amended independent claims 1 and 8 in order to incorporate the limitations of claims 3 and 10 respectively. These limitations specify that the indication obtained from the HAAA/PPS also specifies that the profile of the prepaid subscriber for whom the prepaid quota is established also includes a subscription to one or more particular service options. This is neither taught nor suggested neither by Chowdhury nor by Hsu. In particular, Hsu fails to teach a profile of a prepaid subscriber for whom the prepaid quota is established includes a subscription to one or more particular service options, because Hsu is limited to a profile that specifies QoS information, not any information relative to prepaid quotas (see for example Hsu, Fig. 2, 3, and par. 61-68, where Hsu repetitively details QoS association to service instances).

Therefore, Applicant respectfully submits that claim 1 is novel and nonobvious, and thus patentable over the teaching of the cited prior art. All other claims are either dependent of claim 1 or contain similar limitations and are thus submitted as being patentable for the same reasons.

Conclusion

All pending claims are herein submitted as being in favorable condition for allowance.

The Undersigned will further communicate by phone with the Examiner in order to set up a phone interview to facilitate the prosecution of the present patent application.

Respectfully submitted,

/Alex Nicolaescu/

Alex Nicolaescu

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Dated: January 19, 2009